

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF LED COUNTDOWN PEDESTRIAN SIGNAL HEADS, APS PUSHBUTTONS AND SIGNS AT THE INTERSECTION OF MD 675 (SOMERSET AVENUE) AND PRINCE WILLIAM STREET. MD 675 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THIS INTERSECTION CURRENTLY OPERATES IN A NEMA FOUR-PHASE FULL-TRAFFIC-ACTUATED MODE WITH ALTERNATE PEDESTRIAN PHASES FOR THE NORTH AND SOUTH LEGS OF THE INTERSECTION. CONCURRENT PEDESTRIAN PHASING IS PROVIDED FOR THE EAST AND WEST LEGS OF THE INTERSECTION.

CONTROLLER REQUIREMENTS

THE EXISTING FULL-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC SIGNAL CONTROLLER HOUSED IN A BASE MOUNTED CABINET SHALL BE USED. AN APS CENTRAL CONTROL UNIT SHALL BE FURNISHED BY THE CONTRACTOR AND INSTALLED BY SHA.

SPECIAL NOTES

APS WILL FUNCTION AS FOLLOWS:

TO CROSS SOMERSET AVENUE:

- WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS SOMERSET AT PRINCE WILLIAM. WAIT."
- WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

TO CROSS PRINCE WILLIAM STREET:

- WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS PRINCE WILLIAM AT SOMERSET. WAIT."
- WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

CONTACT PERSONS FOR DISTRICT #1 ARE AS FOLLOWS:

MR. KENNETH CIMINO
ASSISTANT DISTRICT ENGINEER-TRAFFIC
PHONE: (410) 677-4040

MR. BRUCE POOLE
DISTRICT UTILITY ENGINEER
PHONE: (410) 677-4082

MR. GREG HOLSEY
ASSISTANT DISTRICT ENGINEER - CONST.
PHONE: (410) 677-4020

MR. JAMES WRIGHT
ASSISTANT DISTRICT ENGINEER - MAINT.
PHONE: (410) 677-4010

CONTACT PERSONS FOR OOTS ARE AS FOLLOWS:

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
DIVISION
PHONE: (410)787-7630

MR. ED RODENHIZER
CHIEF, SIGNAL OPERATIONS
PHONE: (410)787-7650

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF
TRAFFIC OPERATIONS
PHONE: (410)787-7630

MR. EUGENE BAILEY
CHIEF, SIGN OPERATIONS
PHONE: (410)787-7676

MR. JOHN GOVER
OFFICE OF HIGHWAY DESIGN
PHONE: (410) 545-8766

GENERAL NOTES

- ALL EXISTING FOUNDATION TOPS WITHIN EXISTING SIDEWALK SHALL BE REMOVED 2" BELOW SIDEWALK GRADE AND NEW SIDEWALK SHALL BE INSTALLED TO BE FLUSH WITH FINAL GRADE.
- ALL PROPOSED FOUNDATION TOPS SHALL BE INSTALLED FLUSH WITH SIDEWALK GRADE.
- ACCESSIBLE PEDESTRIAN CONTROL EQUIPMENT SHALL BE DELIVERED TO THE SHA SIGNAL SHOP FOR TESTING AND PROGRAMMING PRIOR TO INSTALLATION. CONTACT MR. EDWARD RODENHIZER AT 410-787-7652 TO COORDINATE.
- LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SECTION 4E.09 AND FIGURE 4E.2 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
- PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60" X 60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
- THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
- PUSHBUTTON ARROWS AND SIGNS ARE TO BE ORIENTED PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA.

ITEM NO.	DESCRIPTION
9571	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN 8 - R10-3(1) (9"x15")

UNIT	QUANTITY
SF	8

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

ITEM NO.	DESCRIPTION
1002	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS, ANY WIDTH
2002	TEST PIT EXCAVATION
5005	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
8001	FURNISH AND INSTALL AUDIBLE / TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8002	FURNISH AND INSTALL BREAKWAY PEDESTAL POLE - ANY SIZE
8003	FURNISH AND INSTALL LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
8004	REMOVE AND DISPOSE PER ASSIGNMENT
8006	FURNISH & INSTALL UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED OR BORED
8007	FURNISH AND INSTALL UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8010	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8012	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8013	INSTALL GROUND MOUNTED SIGN
8015	1 INCH DIAMETER RIGID STEEL CONDUIT, SCHEDULE 40
8016	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
8017	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8018	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8019	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8020	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
8021	SAW CUT FOR SIGNAL (LOOP DETECTOR)
NEG	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
NEG	ELECTRICAL CABLE - 2 CONDUCTOR ALUMINUM SHIELDED (NO. 14 AWG)

UNIT	QUANTITY
LF	485
CY	7
LF	440
EA	8
EA	7
EA	6
EA	1
LF	225
LF	215
LF	400
EA	6
SF	8
LF	20
EA	6
EA	1
LF	750
LF	870
LF	900
LF	230
LF	585
LF	220

PHASING CHART

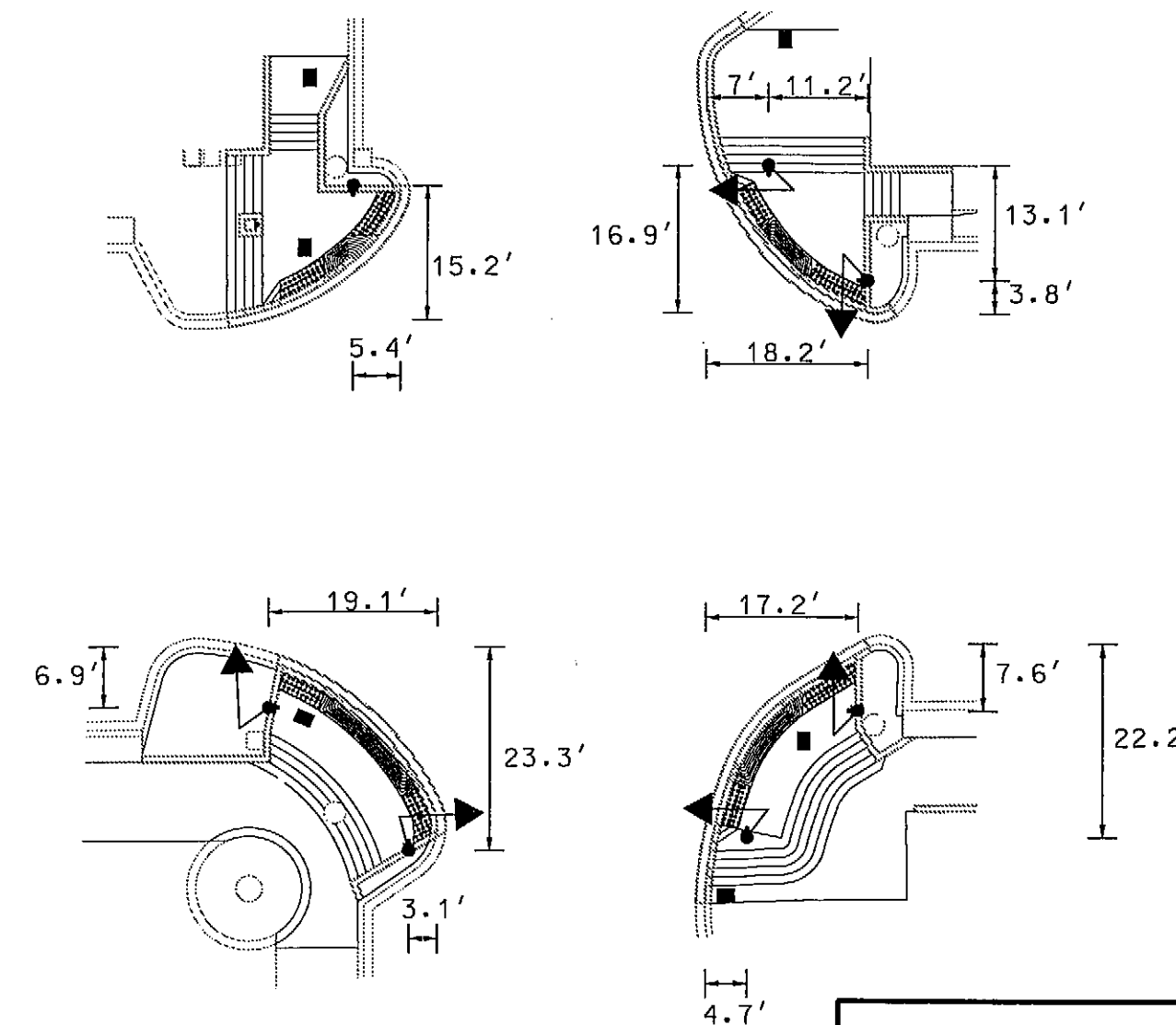
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G									
PHASE 2 & 6	G	G	G	G	R	R	R	R	WK	WK	WK	WK	DW	DW	DW	DW	
PED. CLEARANCE/ COUNTDOWN	G	G	G	G	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW	
2 & 6 CHANGE	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	
PHASE 4 & 8	R	R	R	R	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW	
4 & 8 CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW	
PHASE 4 & 8 ALT	R	R	R	R	G	G	G	G	DW	DW	DW	DW	WK	WK	WK	WK	
PED. CLEARANCE/ COUNTDOWN	R	R	R	R	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW	
4 & 8 ALT CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK	

GENERAL NOTES (CONT.)

- UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "MISS UTILITY" PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- THE CONTRACTOR SHALL VERIFY ALL POLE LOCATIONS PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL CAP AND ABANDON CONDUIT FEEDING SIGNAL EQUIPMENT THAT IS REMOVED.
- ADA REQUIRES THAT ANY ABRUPT CHANGE IN ELEVATION IN SIDEWALK BE LESS THAN 1/4".
- THE CONTRACTOR SHALL ENSURE ALL UNDERGROUND UTILITIES ARE MARKED PRIOR TO TRAFFIC SIGNAL STAKEOUT. THE CONTRACTOR SHALL ENSURE ALL UNDERGROUND UTILITIES ARE MARKED AND STAKEOUT HAS OCCURED PRIOR TO TRAFFIC SIGNAL TURN OFF.

WIRING KEY

M,N,O,P,Q,R, S,T	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
A,B,C,D,E,F, G,H,I,J,K,L	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
U,V,W,X	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
LW	LOOP WIRE (NO. 14 AWG)
Z	STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
Y,AA	2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED) (NO. 14 AWG)
+	PROPOSED GROUND ROD



PEDESTAL POLE DIMENSIONS



REVISIONS	GENERAL INFORMATION SHEET
	SCALE <u>NONE</u> DATE <u>OCTOBER 2011</u> CONTRACT NO. <u>XX1285133</u>
	DESIGNED BY <u>NTS</u> COUNTY <u>SOMERSET</u>
	DRAWN BY <u>NTS</u> LOGMILE <u>19067501.51</u>
	CHECKED BY <u>BJG</u> TMS NO. _____
	FAP NO. _____ TOD NO. _____
	TS NO.1393C-GI DRAWING SP-2 OF 2 SHEET NO. 2 OF 2

PLOTTED: Wednesday, October 26, 2011 At 02:22 PM
FILE: \\keny\2007\2007\07056_shahsd\Task01_ACA\CADD\Traffic\PLANS\MD 675 @ MD 918 (Broad Street) & Prince William\PSG-0002_MD675@PrinceWilliam.dgn